

Amendments to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any cancelled claims at a later date.

1.-5. (canceled)

6. (new) A method for establishing a connection between a service requester and a service provider in a decentralized mobile wireless network comprising a plurality of IP routers, each router comprising a routing table, the method comprising:

sending a service discovery request message towards a service provider via the plurality of IP routers;

receiving the request message by each router;

adding, at each router, routing information pertaining to the received request message in the routing table;

receiving the request message by the provider;

responding by the provider with a service discovery reply in response to the service discover request message; and

adding, at a portion of the plurality of IP routers, routing information pertaining to the corresponding reply messages to the routing table.

7. (new) The method according to claim 6, wherein the request message include an element of a route request of a service provider.

8. (new) The method according to claim 7, wherein the reply message includes all the elements of a route reply of the service requester.

9. (new) The method according to claim 6, wherein the request and reply messages are in accordance to a Ad hoc On Demand Distance Vector Routing Protocol or a Dynamic Source Routing Protocol for Mobile Ad hoc Networks.

10. (new) The method according to claim 9, wherein the protocol of the request and reply message is extended such that on receipt of the expanded messages the routing tables are updated with routing information.

11. (new) A method for establishing a connection between a service requester and a service provider in a decentralized mobile wireless network comprising a plurality of IP routers, each router comprising a routing table, the method comprising:

multicasting a service discovery request message towards a service provider via the plurality of IP routers, wherein the network is flooded with the request message from the multicasting;

receiving the request message by each router;

adding, at each router, routing information pertaining to the received request message in the routing table;

receiving the request message by the provider;

responding by the provider with a service discovery reply in direct response to the service discover request message, wherein the network is not flooded with the reply message;

receiving the reply message by a portion of the plurality of IP routers; and

adding, at the portion of the plurality of IP routers, routing information pertaining to the corresponding reply message to the routing table,

whereby an over-head incurred in the network by multicasting a route request from the provider to the requester is avoided.

12. (new) The method according to claim 11, wherein the request message includes an indicator indicating to the receiving routers to add routing information pertaining to the received request message.

13. (new) The method according to claim 11, wherein the reply message includes an indicator indicating to the receiving routers to add routing information pertaining to the received reply message.

14. (new) The method according to claim 11, wherein the request and reply messages are in accordance to a Ad hoc On Demand Distance Vector Routing Protocol or a Dynamic Source Routing Protocol for Mobile Ad hoc Networks.

15. (new) The method according to claim 11, wherein the portion of the routers is determined via a route/path determined from multicasting.

16. (new) A decentralized mobile wireless network system, comprising:  
a network service that is available to a service requester;  
a plurality of IP routers each having a routing table;  
a service discovery request message that includes a first routing indicator and information pertaining to the service,

wherein the request message is multicasted from the requester, thereby flooding the network, and

wherein each router receives the request message and updates the routing table with routing information pertaining to the received request message when the request message includes the first routing indicator;

a plurality of service providers receive the request message; and

a service discovery reply that includes a second routing indicator,

wherein the reply is sent by a provider that receives the request message and that provides the service, the reply is sent in direct response to the service discover request message,

wherein the network is not flooded with the reply message, and

wherein the reply message is received by a portion of the plurality of IP routers and the routing table at the portion of routers is updated with information pertaining to the corresponding reply message when the reply message includes the second routing indicator, and

wherein a connection between the requester and the provider providing the service is establishing in the network.

17. (new) The method according to claim 16, wherein the portion of the routers is determined via a route/path determined from multicasting.

18. (new) The method according to claim 16, wherein the request and reply messages are in accordance to a Ad hoc On Demand Distance Vector Routing Protocol or a Dynamic Source Routing Protocol for Mobile Ad hoc Networks.